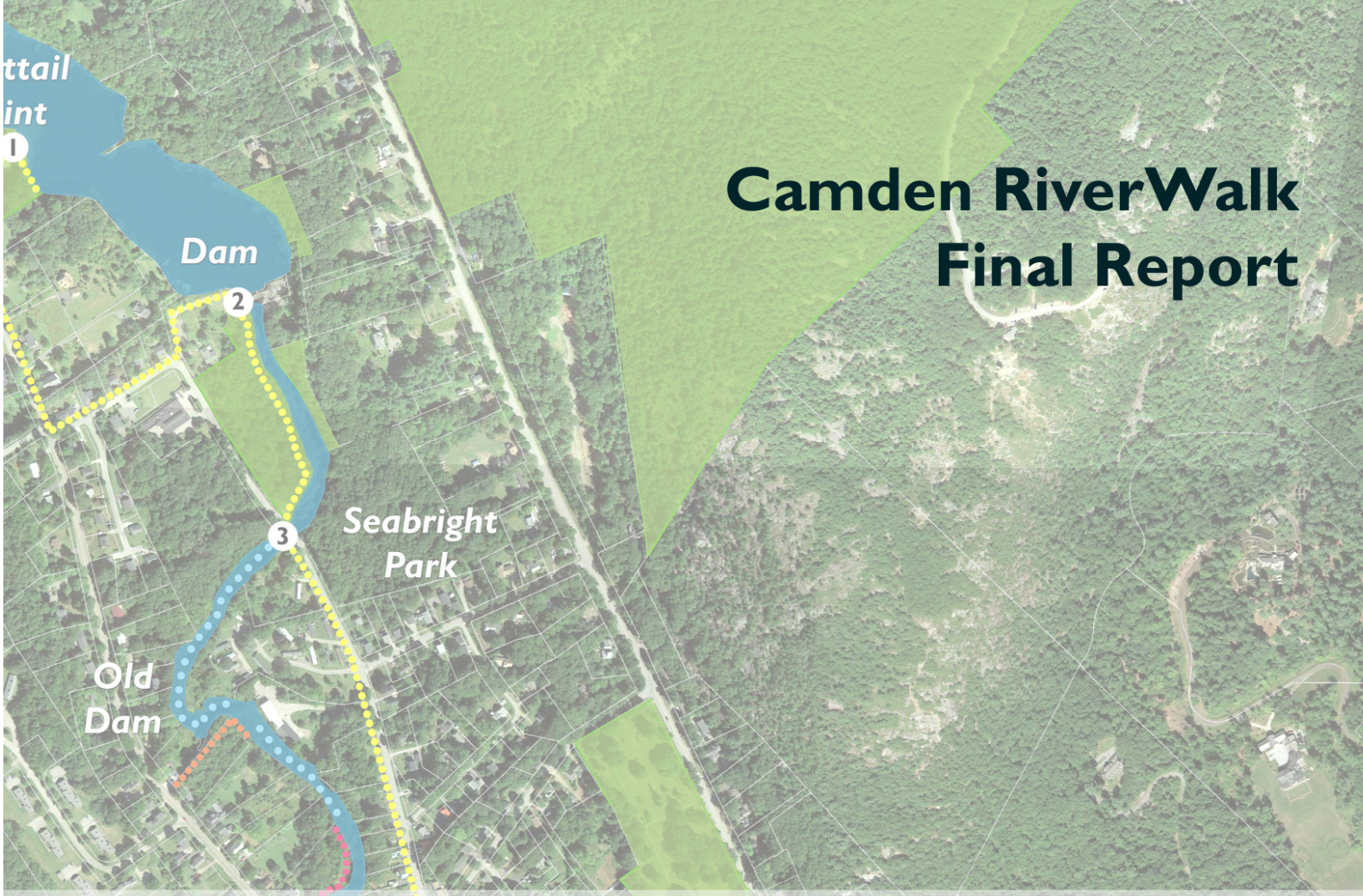

Camden RiverWalk
Final Report

submitted to:

The Town of Camden

submitted by:

T·Y·LIN INTERNATIONAL
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The statements, findings, conclusions, and recommendations are those of the author(s) and do not necessarily reflect the views of the National Oceanic and Atmospheric Administration or the Department of Commerce.

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I. EXECUTIVE SUMMARY

The T.Y. Lin International Study Team ("Study Team") is honored to provide The Town of Camden, Maine (the "Town") with a Master Plan which explores the feasibility and benefits of a multi-use 'Riverwalk' pathway along or adjacent to the Megunticook River from Shirttail Point Park to Camden Harbor.

The plan includes pathway alignment through existing and proposed accessible public open spaces, easements over private land, and over existing municipal sidewalks. The variety of spaces reflects the community's desire to provide immediate connectivity until additional easements and parcels become available in the future. It is hoped that over time, as the Riverwalk becomes a natural asset to all and even results in benefits to real estate, more and more landowners will feel inspired to participate in easements.

> *From the start of the inventory and analysis to the conclusion of the schematic design, the Team has encouraged the Town to be bold and visionary in planning, and patient and creative in implementation. The following Plan is a road map for realizing the greatest potential.*

Based on the preferences of the Camden community – gathered through a thorough public participation process and in collaboration with a well engaged Work Group – the schematic design provides typical treatment of various sections of the pathway according to their contexts, as well as preliminary recommendations for amenities, permitting, and funding.

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II. INTRODUCTION

The concept of a Riverwalk comes naturally from the heritage of Camden's proud commitment to embody a healthy community. Camden's Comprehensive Plan stated in 2004: "Pathways can provide recreational opportunities in addition to an alternative to motor vehicle transportation. Proposed pathways should serve both purposes, but maintain a balance between the public benefit and the impact on neighborhoods, thereby enhancing the livability of the community." The Plan suggested the following implementation:

Strategy: *Support the ongoing efforts of the Pathways Committee*

Responsibility: *Parking, Transportation & Traffic Committee with Camden/Rockport Pathways Committee*

Timeframe: *Immediate and ongoing*

A. Purpose and Need: Why have a Riverwalk in Camden?

- Serve walkers, joggers, cross-country skiers, bicyclists, sight-seers, birdwatchers, commuters, and all non-motorized users.
- Give people a way to appreciate the Megunticook River, its watershed and ecological values, and greater access to Camden's natural beauty.
- Connect people and reinforce a sense of cohesive community and quality of life.
- Provide children with a safe route to school.
- Reduce congestion of cars in the downtown.

"Trails link people to green spaces, neighborhoods, schools and waterfront. Trails counteract sprawl by providing alternative routes of transportation. Trails connect people by getting them out of their cars and on a community link to each other. Trails allow us to live in proximity to one another. Trails make conservation relevant to people's everyday lives. PT continues to succeed and grow not only because we are building a system of trails linking open spaces, but because of all of the different people who keep contributing their time and passion for a cause in which they believe." – Portland Trails

B. History: A Legacy of Open Space

> *"All I could see from where I stood*
> *Was three long mountains and a wood;*
> *I turned and looked another way,*
> *And saw three islands in a bay...."*
> ***Edna St. Vincent Millay***

"From the mountains to the sea": With the Camden Hills standing nearby over the town, and visible from almost every neighborhood, who can be unaware of the beautiful setting for this waterfront town? And Camden has embraced its heritage of beautiful land and water from its beginning. People come from all over the world to hike and enjoy the stunning views from Megunticook. Artists and photographers never tire of the drama and the light. Maps and tourist options abound. Day trips are offered from the Public Landing. The missing link from the mountains to the sea might just be the Riverwalk. And yet there too, an awareness of need and opportunity has been growing within the community

In 1998 the Select Boards in Camden and Rockport appointed the **Camden-Rockport Pathways** Committee. The vision, commitment, and passion of the Committee have been present throughout the exploration of feasibility for the Riverwalk.

In 2007, the Pathways Committee authored the **Camden Bicycle and Pedestrian Master Plan**, articulating the following goals:

- Creation of a network of attractive and functional ped/bike facilities within the two towns, and integration of these facilities with a regional transportation system
- Enhancement of the quality of life and improvement of the general health of the community by providing additional opportunities for exercise and recreation
- Reduced motor traffic congestion
- Mitigation of environmental pollution
- Provision of safe routes for students walking/biking to school
- Enhancement of the community's attraction as a tourist destination
- Development of a riverwalk along the Megunticook River

The Town completed its **Downtown Master Plan** in 2012. Recommendations contained in the Plan included the construction of a riverwalk not only as a means to better utilize one of the

many natural assets of the area but also to connect residents from neighborhoods with downtown, schools, and open spaces. Another benefit is that a pathway will provide visitors with a means of wayfinding in and around the entire downtown area, taking advantage of the many businesses located outside of the Elm St/Main St corridor.

Camden Rockport Pathways Committee RIVERWALK Proposal, 2012: "With the Camden Riverwalk trail, the community has a perfect opportunity and location in which to create something that is unavailable elsewhere in Camden: a pathway through a beautiful natural riverside area along the Megunticook River in central Camden that is accessible to a broad residential population and to people who are mobility-challenged. It will serve as a connection between two of Camden's commercial districts, beckoning users to commute by foot from one to another – without climbing hills. It will enhance our sense of community and our quality of life as we greet our neighbors and walk our dogs in this relaxed setting. It will provide a safe route to school, away from roads, for middle school children. It will enable teachers to bring their students to the river to study the riverine ecosystem there. "

In 2012, the Town of Camden in partnership with Friends of Midcoast Maine, CEDAC, Downtown Business Group, and Pen Bay Chamber of Commerce conducted a **Walkability Audit** with consultant Dan Burden. In his report, Burden emphasizes pedestrian experience, i.e., views, materials, and tree canopy. He explains that desirable spatial character is expressed through a sense of enclosure, the degree of transparency at the edge of a space, and with memorable images, architectural complexity, and human scale. "It is within the protected spaces of a sidewalk where people move freely but also spend time engaging others and enjoying their public space." He also noted that sidewalks work best when they are fully buffered from moving traffic, for example by on-street parking, bike lanes, and planted esplanades.

In December of 2012, the Town distributed a Request for Proposals (RFP) for the "River to Harbor Walk and Public Landing – Design Services" project. The RFP was seeking professional consulting/engineering services for two separate projects:

- Development of conceptual alignments for a Riverwalk connecting Shirttail Point Park to Camden Harbor
- Determination of best uses for the Public Landing including conceptual redesign plans

The Town secured funding for the projects, in part, through the Maine Department of Agriculture, Conservation, and Forestry's Maine Coastal Program. The Riverwalk project was to review potential connections between the Shirttail Point Park and the Public Landing/Harbor park area generally following the Megunticook River to the greatest extent possible.

The Town of Camden selected a Study Team comprised of T.Y. Lin International, Terrence J. DeWan and Associates, Baker Design Consultants, Penobscot Environmental Consulting, Inc., Planning Decisions, Inc., and Northeast Civil Solutions, Inc. to conduct this study.

In addition to the reports and documents described previously, the following studies, reports, and plans also were taken into consideration during the feasibility study for the Riverwalk:

- Camden Downtown Master Plan
- Camden Downtown Municipal TIF District
- The Future of Camden's working Waterfront
- An Economic Vision for Camden

A Work Group was formed to oversee the Riverwalk study and schematic design process. This group was comprised of Camden officials as well as local residents, town committee members, waterfront representatives and business owners. The following members served on the Work Group during the course of this study:

Camden Riverwalk Work Group Members	
Name	**Affiliation**
Brian Hodges	Camden Development Director Project Manager (Town)
Ray Andresen	Chair of the Camden Parks and Recreation Committee/Resident
Anita Brosius Scott	Camden/Rockport Pathways Committee/Resident
Martin Cates	Select Board Chair/Resident
Staci Coomer	Penobscot Bay Regional Chamber-of-Commerce Executive Director
Pat Finnigan	Camden Town Manager/Resident
Ken Gross	Camden Public Library Complex
Doug Johnson	Chair of the Camden Conservation Commission/Resident
Gene McKeever	Chair of the Harbor Committee/Resident
Steve Pixley	Camden Harbormaster/Resident
Barrie Pribyl	Camden Downtown Business Group Executive Committee
Meg Quijano	CEDAC (Camden Economic Development Advisory Committee); Camden Downtown Business Group Executive Committee/Resident
Rick Seibel	Camden Public Works Director
Stuart Smith	Camden Business/Property Owner (Public Landing)/Resident
Cassie Snyder	Owners' Representative, Knox Mill condominiums/Resident
Beth Ward	Acting Director, Camden Parks and Recreation Department/Resident
Steve Wilson	Camden Codes Enforcement Officer and Planner
Darin Bryant	TYLI Study Team (TY Lin International)
Kathy Kern	TYLI Study Team (TY Lin International)
Sarah Witte	TYLI Study Team (Terrence J. DeWan & Associates)
Dan Bannon	TYLI Study Team (Baker Design Consultants)
Mike Thompson	TYLI Study Team (Penobscot Environmental Consultants, Inc.)

Camden Riverwalk Work Group Alternates	
Name	**Affiliation**
Kathleen Bachus	Camden/Rockport Pathway Committee and Knox Mill Condos/Resident
Robert Davis	Camden/Rockport Pathways Committee/Resident
Flint Decker	Camden Downtown Business Group Executive Committee/Resident
Ben Ellison	Harbor Committee/Resident
Ed Libby	Camden Parks and Recreation Committee and Dam Committee/Resident
Nikki Maounis	Library Complex
Roger Rittmaster	Conservation Commission/Resident

The goals, objectives, and recommendations of all of the above efforts and the input of the Work Group and Pathways Committee have all factored into the analysis of the Riverwalk's feasibility and the resultant recommendations of the Study Team.

C. Goals of Study: Feasibility

"The conceptual design and engineering plan for the Riverwalk will identify the feasibility of constructing approximately 2 ¼ miles of a multi-use pathway located along and/or adjacent to the Megunticook River." *(Request for Proposals, 12/05/12)*

Feasibility meant determining whether the Riverwalk could be accomplished using available resources and what other resources would be required in terms of funding, permits, easements and community acceptance.

The Conceptual Design for the Riverwalk affirms the viability of the pathway, and provides the Town with a schematic layout, design palette, and vision for implementation through land and easement acquisition, permitting, engineering and construction.

D. Significance and Benefits: Active Communities Thrive

Walking is often thought of as a benchmark for livability: can I walk to the store, church, or school? Sidewalks are public spaces, providing places for casual meeting and social interaction. Walking gets people out into the community, fostering a greater sense of involvement. Walking is a form of recreation that is easily accessible to most people, and doesn't cost a lot to participate in. Sidewalks and pathways provide connections between people and places. Furthermore, having more people outside (more 'eyes on the streets') increases community security.

> ***The Community as a whole benefits*** *when more people are out walking, and therefore public spaces are the 'common wealth' of the Town.*

Recently the Town has been designated an **Active Community Environment** (ACE). This designation comes from a Community Transformation Grant which is administered by the Maine Department of Health and Human Services. Regions in Maine receive funds from this grant to promote walking, bicycling and the development of accessible recreation facilities. The Riverwalk project is a great fit for a community with an Active Community Environment

designation. The following information is provided at the following Active Living Research website: www.activelivingresearch.org

- People who live in neighborhoods with sidewalks on most streets are 47% more likely to be active at least 30 minutes/day
- Students who walked to school every day had 24 more minutes of physical activity/day
- A study in Nebraska found that for every $1 spent on trails, there was almost $3 in savings in direct medical costs
- People who live near trails are 50% more likely to meet physical activity guidelines
- People who live in walkable communities are 2 times as likely to get enough physical activity as those who don't

Transportation benefits are realized by getting more people to walk. Walking helps to reduce congestion on our roads as well as the need for parking. It reduces our dependence on the automobile and decreases traffic. Walking is also the only option for children, some elders, and many people who don't drive or don't own a car.

Health Benefits: Walking can lower the risk of heart disease and stroke; lower blood pressure, reduce high cholesterol levels, help control body weight, reduce the risk of diabetes, and reduce the risk of colon cancer. Walking can give people a way to connect with nature, which not only is good for the individual but also fosters a sense of stewardship for the environment. Camden has an opportunity for more people, especially school children, to learn about the importance of a healthy watershed as part of a larger ecosystem.

Regional Connections: The East Coast Greenway's (ECG) website indicates that their vision is "for a long-distance, urban, shared-use trail system linking 25 major cities along the eastern seaboard between Calais, Maine and Key West, Florida. It will serve non-motorized users of all abilities and ages. A 3,000-mile-long spine route will be accompanied by 2,000 miles of alternate routes that link in key cities, towns, and areas of natural beauty. This green travel corridor will provide cyclists, walkers, and other muscle-powered modes of transportation with a low-impact way to explore the eastern seaboard."

*Washington Street in Camden is already designated as an on-road link along the **East Coast Greenway**'s (ECG) Coastal Route – the Riverwalk will weave through and connect to this portion of the ECG*

In order to meet ECG standards, "The trail surface must accommodate various users, including wheelchairs and touring bicycles." ECG requires a hard surface such as asphalt or pavement, or a firm surface such as stone dust. Washington Street in Camden is currently designated as an on-road link along the ECG's Coastal Route connecting Brunswick and Ellsworth.

The Riverwalk segments which are in alignment with the East Coast Greenway route should be built to those design standards. As one of the few coastal towns in the area with an East Coast Greenway route, Camden has the potential to host numerous through-hikers and bicyclists, and also to provide food and lodging in a beautiful, memorable setting. "ECG trails are owned and managed by agencies at the state and local levels," which is how Camden-Rockport Pathways

Typically, on-road routes are designated as the ECG until off-road routes are constructed. It is reasonable to assume that any off-road portions of the Riverwalk could be designated as the ECG after construction.

can stay involved, and "ECG Association will provide guides, signage, maps, cue sheets, and promotion of the route". The increased visibility and use of the Riverwalk by ECG visitors can help with funding and will have a net positive effect on safety and community involvement and acceptance. For more info see the East Coast Greenway Website: https://www.greenway.org/explore-by-state/me

Finally, there are economic benefits to walking. Getting more people out walking, and achieving a higher level of physical fitness, will cut the cost of medical care and reduce the amount of time off due to sickness. Encouraging more of our elders to walk will help them maintain their sense of independence, and ultimately reduce the cost of institutional care. In the Economic Impact Analysis of the Riverwalk, the Team has explored the possible advantages to the business community, such as tourists who visit an area and stay longer to explore the open space network, bicyclists and hikers who patronize businesses on either end, and the vibrancy of a commercial district that provides goods and services to those who enjoy the outdoors. In the end, walking is the ultimate form of affordable transportation, especially considering that the average household spends 13% of their income on their automobiles (statistic from Bureau of Labor Statistics, U.S. Government – see website at: http://www.bls.gov/cpi/cpid1201.pdf .)

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III. FEASIBILITY STUDY: PROCESS AND PRODUCTS

A. Overview of Process

1. Mapping, reports, data

After gathering available maps from the municipal offices, the Study Team created a working base map with Google Earth Pro aerials, floodplains, Maine Office of GIS LIDAR contour data, and tax maps with municipal ROW delineation. Background reports described previously were assimilated.

2. Field Work

The Study Team compiled detailed photography and conducted on-the-ground inventory and analysis of every segment of the Riverwalk and its potential alignments within the corridor. Every segment which could possibly provide connectivity from Shirttail Point to Camden Harbor was evaluated, including municipal parcels, streets and sidewalks, and private properties to which we had access and permission.

3. Public Participation

Following the broad representation on the project's Selection Committee, the Town created a Work Group (see names above) to help guide the Study Team in the development of the project. The Work Group represented a hands-on, engaged, and hardworking partnership with the consultants, and again represented diverse interests and affiliations within the Camden area.

Over the course of the project's development, Camden Economic Development Director Brian Hodges organized multiple levels of outreach efforts to all Stakeholders:

- Camden Riverhouse Hotel and businesses on Tannery Lane
- All properties abutting river, on both sides
- Knox Mill Property Owners and condo association
- Shirttail Point Park Neighbors
- Coastal Mountains Land Trust (CMLT)
- Camden/Rockport Pathways Committee
- Camden/Rockport Middle School on Knowlton Street
- Camden Water Treatment facility

4. Public Meetings

In Camden, the collective wisdom and group process which leads to exciting community vision has been dynamic. Many towns have diverse and often discordant groups and opinions, as does Camden, but few have such extraordinary ability to work towards a future which meets the needs of the entire community. In coordination with the Work Group, the Study Team was able to plan and facilitate public forums for community participation. The community as a whole reviewed the viability of a Riverwalk and affirmed the goals of healthy living, social engagement, and a sense of opportunity that must be embraced. For more information on the public forum process, including meeting minutes, can be found on the Town of Camden's website at the following location: http://www.camdenmaine.gov/

- **First Public Forum; April 1, 2013:** Held at the Camden/Rockport Middle School. The Study Team was in town for an entire day and evening for the purpose of listening and gathering critical input regarding the Riverwalk. The presentation included the concept of Camden's own "Emerald Necklace", a system of open spaces and trails inspired by the work of Frederick Law Olmsted. Surrounded by majestic mountains and harbors, and set in one of New England's most beautiful towns with its rich heritage of notable public spaces and structures such as the Camden Public Library, Harbor Park and Bok Amphitheatre, Camden has every reason to claim the possibility of extending the legacy.

> *"In March, 2013, the Camden Public Library and Amphitheatre were designated a National Historic Landmark. Landmark status is awarded for nationally significant historic places that possess exceptional value or quality in illustrating or interpreting the heritage of the United States."*
>
> *-Camden Public Library*
>
> http://www.librarycamden.org

Before breaking into small groups for discussion of the Riverwalk, the Study Team also presented a case for public pathways in terms of community benefits. Attendees at the Forum had an opportunity to ask questions about the intent of the plan – would it be possible to achieve a Riverwalk if the continuous frontage was not yet available? The Study Team described the alternatives such as converted sidewalks and opportunities for building visibility for the Riverwalk, and the encouraging stories of other communities who have started with bits and pieces before the entire system was realized.

In the breakout groups, Camden shone. People listened to each other's hopes and concerns, and described solutions for the Riverwalk's alignment and detailing. In reviewing detailed notes from the evening, the Team noted the following themes most consistently expressed, which were integrated into the design criteria and recommendations.

- **Second Public Forum; April 22, 2013:** Held at Celebration Life Family Church. This was primarily organized and held for input on the Study Team's concurrent Public Landing project.

- **Third Public Forum; June 24, 2013**. Held at the Camden/Rockport Middle School. This public meeting was held to share the work completed to date on both the Riverwalk and the Public Landing projects. The Riverwalk plan was well received, with many questions and resultant discussion about the specifics of trail location and schematic design, including the following:

  - Materials for pathway surfacing should be context sensitive, in other words it depends on the neighborhood and surrounding surfaces. Pathways through wooded areas would be mulch,

stone dust and gravel to provide a soft yet accessible surface.

- Pathway alignments along streets would have esplanades if possible.
- Bridges would be part of a long-range vision vs. immediate alignment due to need for grant writing to funding sources. In the preliminary plan, there was one bridge behind the school / wastewater treatment plant area. The possible pedestrian bridge over the falls at the Public Landing is not part of the Riverwalk Project.
- Permitting for the pathway will involve an awareness of natural areas and minimizing impact where possible.

❖ **Fourth Public Forum; September 16, 2013: H**eld at the Camden/Rockport Middle School. Final Schematic Plans for both projects were presented. The Team synthesized the feedback, ideas, and concerns of the Town into a set of loose concept plans, with 'order of magnitude' cost, phasing, and permitting implications, and presented them to the community.

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IV. SCHEMATIC DESIGN FOR THE RIVERWALK

A. Existing Conditions: Understanding Places and Connections

Please see Appendix A, Figure 1 for the ***Project Location Map,*** and Appendix A, Figure 2 for a ***Key Map*** for the other mapping included in this section.

Point 1: Shirttail Point Park (*Appendix A, Figure 3*)

Photo from Google maps

Description of existing conditions: Open lawn area, views of Megunticook, parking area, swimming, canoe and kayak put-in, and picnic area. Birdwatching from shore

Pathway from this point to next: Preferred route to Point 2 along water is relatively level grade over non-participating residential properties. Washington Street sidewalk project will provide improved sidewalk. No sidewalks currently available on Mount Battie Street. Unpaved footpath across CMLT parking lot leads to Point 2.

Point 2: Dam at northern end of Seabright Park (*Appendix A, Figure 3*)

Photo from Google maps

Description of existing conditions: Open lawn and gentle slope from Mt. Battie Street and CMLT offices to dam, with views up and down river, and across to Megunticook. No parking is available for pathway use. Entry to Seabright Park.

Pathway from this point to next: existing pathway in Seabright Park is 6-8' wide, mulch and gravel surface. Signage is minimal. Fishing access along river.

Point 3: Trailhead at southern end of Seabright Park at Mount Battie Street (*Appendix A, Figure 4*)

Description of existing conditions: Small parking area at sewer pump station and along Mt. Battie Street.

Photo from Google maps

Pathway from this point to next: From Mt. Battie Street to Mill Street, there are no existing sidewalks. On Mt. Battie Street, from Mill Street to the Megunticook Market and Washington Street, there is a 5' wide asphalt sidewalk with asphalt curb on the west. The curb cut to parking areas at the Market is wide open without crosswalks or pedestrian zones delineated.

Additional Pathway options: two residential parcels on Washington Street offer access to the other side of the river, in separate non-continuous segments.

a) 125 Washington Street has steep grade (no path currently) down to floodplain and river frontage.

b) 137 Washington Street has level pathway with natural leaf material surface through mature deciduous woodland to historic granite dam on Megunticook River, approximately across from storage building on Mt. Battie Street, and downstream along river frontage of parcel.

Point 4: Washington St. bridge over river, at Megunticook Market (*Appendix A, Figure 5*)

Description of existing conditions: Large span bridge over river with high visibility. Painted crosswalk over Washington Street to Tannery Site.

Pathway from this point to next: Easement over Tannery Site secured by Town and Camden Rockport Pathways Committee. Funding in place for construction of stone dust pathway along river to sidewalk connection at Rawson Ave. Potential connection to Mountain View Cemetery and excellent bird watching.

Point 5: Rawson Ave. bridge over river, southern end of Tannery Site (*Appendix A, Figure 5*)

Description of existing conditions: Large span bridge over river with high water visibility. No crosswalk over Rawson Ave. from Tannery to other side of Rawson. Residential properties and mixed plantings on both sides of street.

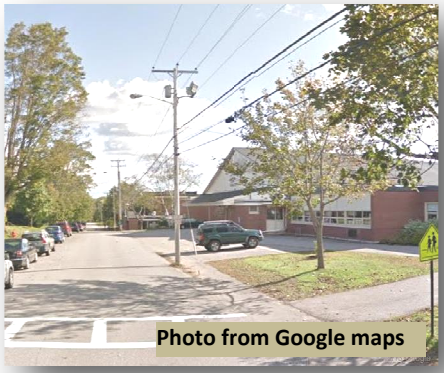
Pathway from this point to next: Washington Street to Knowlton Street. Sidewalk is 4-5' width where present, and esplanade varies from grass to paved, without curbs.

Large commercial property curbcuts with no crosswalk or pedestrian delineation. Esplanade transitions to road shoulder with drainage. No trees on this side of street.

At intersection with Knowlton Street, sidewalk switches to left side, connected by painted crosswalk, however the school is on the right side. Paved shoulder is informally used as sidewalk across one residential property to access school grounds. No crosswalk provided across school driveway on right.

Point 6: Mary Taylor Middle School, Knowlton Street (*Appendix A, Figure 6*)

Description of existing conditions: Large campus with school at Knowlton Street and grass and paved play areas behind, backing all the way up to wooded slope down to Megunticook River valley. Opportunities including excellent bird habitat, vernal pools, floodplain for educational



interaction. CMP transmission line crossing. Camden Wastewater Treatment Facility downstream.

Pathway from this point to next: Middle School is in process of redesigning access and circulation routes. Currently cars have head-in parking along Knowlton and natural pedestrian movements along street would be unsafe. (Hence crosswalks to parallel parking and sidewalk on opposite side of road.) Sidewalk on left side continues down Knowlton Street past Lions Lane (entry drive to municipal water treatment facility) on the right, and to Knowlton Street Bridge. Pathway along river (behind Middle School and Water Treatment parcel) does not yet exist. Top of bank alignment is in various conditions: mown grass, wooded, and paved access road. The School is looking at how they might incorporate the Riverwalk and access to the river into their curriculum. Areas of the trail here will require permits because bridges and wetlands crossings are involved, and access over Town-owned property at the Wastewater Plant is complicated by the grade along the river.

Point 7: Knowlton St. bridge over river and ponds (*Appendix A, Figure 7*)

Description of existing conditions: Large span bridge over river with high water visibility. Decorative railing invites viewing river upstream (wooded residential area) and downstream (start of millponds through Knox Mill complex). Washington Street bridge over river between Knox Mill and Tannery Street is a large span bridge with high water visibility of millponds under the street and buildings, and of waterfalls upstream. Ducks, geese, loons, herons and other seabirds land in ponds.

Pathway from this point to next: 4-5' wide sidewalk with raised curb on left/downstream side of

Photo from Google maps

Photo from Google maps

Knowlton Street to Mechanic Street. Concrete sidewalk across parking lot entry to Knox Mill with cobblestone strip delineates pedestrian connection. Sidewalk is continuous to Mechanic Street corner intersection. Pathway spurs by Camden Villas and Knox Mill business properties and then sidewalk on Mechanic past Flower Bridge and Tannery Street offer close-up views of mill ponds and waterfalls.

Point 8: Arrival at Main Street (*Appendix A, Figure 7*)

Description of existing conditions: Downtown concrete sidewalks. Glimpses of water between buildings but 'river' is temporarily invisible.

Pathway from this point to next: Concrete sidewalk with granite curbs, along Main Street to alley. Painted crosswalks at intersections.

Photo from Google maps

Photo from Google maps

Point 9: Harbor Park (Terminus A - *Appendix A, Figure 7*)

Description of existing conditions: sloping lawn and paved pathways down to water. Grades may exceed ADA guidelines (5% max unless handrails and landings are provided for safety.)

Pathway from this point to next: Pathway from the Harbor Park area to the Public Landing is not available. Community has discussed building a pedestrian bridge adjacent to the waterfalls, spanning approximately 150' of water.

Point 10: Public Landing (Terminus B *Appendix A, Figure 7*)

Description of existing conditions: Parking lot for close to 100 vehicles, commercial entities, Chamber of Commerce and restroom amenities, and water access. Pedestrian access from Main Street is via sloping paved alley way without lighting or handrails, and via Commercial Street

Pathway from this point to next: Sidewalk is provided on left side of Commercial Street. Painted line delineates vehicular travel way on right. Painted crosswalks serve primarily to alert drivers to pedestrian areas ahead, but cannot contain heavy volume of pedestrians during peak seasons.

B. Design Criteria: Understanding Community Preferences

The following criteria have been employed in the development of the schematic design solutions recommended by the Team and Work Group, and should also guide future phases of engineering and implementation:

- **Segments**: Due to the layers of complexity and the numerous abutting property owners, the Riverwalk corridor is seen as a series of interconnected neighborhoods, natural spaces, and linear path segments within the context of a river corridor. While each segment will have its own unique personality (with possible variations due to existing conditions, views, and proposed land uses), the Riverwalk as a whole should have a consistent feel. Schematic design details and materials have been recommended to create a cohesive whole, and send the message that users are welcome to the resource.

Community Input was vital to the determination of the most important Design Criteria for the Riverwalk

COMMUNITY INPUT:

- Parking is needed at points along the trail
- Bike access is needed
- Bradbury Mountain (Pownal, ME, Portland, Lewiston/Auburn, Brunswick, and Keene, NH trail systems are models
- Have stopping points along the way with "mini-destinations"
- Shirttail Park/Harbor/Seabright are important areas

- **Schematic Design:** The Riverwalk should be a model for context sensitive design; i.e., a solution that respects the nature of the neighborhoods and village while providing a safe, functional, and attractive way for non-motorists to get around. Recommendations should be appropriate to the opportunities and limitations of the area, anticipated use, community expectations, the Town's maintenance capabilities, and projected funding source(s). The

design should encourage developers of abutting properties to face and embrace the trail rather than turn away from it.

COMMUNITY INPUT:

- Use asphalt only in village or downtown. From the Tannery out should be more natural, from there in to Town should be more built-up
- Important locations: Mill Complex/Farmers Market
- Need to address privacy of abutters

❖ **Safety**: One of the primary reasons the Riverwalk is being built is to provide a safe route for walkers, joggers, strollers, and others who appreciate the beauty and character of the river, woods, and waterfront. Safety and visibility will be a major consideration in all aspects of the planning and design. Special consideration will be given to road crossings, tight curves, steep slopes, and other challenging locations.

COMMUNITY INPUT:

- Lighting needed? Hours of use?
- Winter safety (river freezing, unsafe, separate trail from water?)

❖ **Accessibility**. The Riverwalk must be accessible to all users, to the degree physically possible, and compliant with Americans with Disabilities Act (ADA) recommendations. There are physical constraints along the way (floodplains, drainage, pinch points at private property corners, underground utilities), but each can be dealt with through proper route selection, grading, and surface detailing. Signage at the beginning of each segment can inform users of the distance and maximum grades which will be encountered.

COMMUNITY INPUT:

- The Tannery site, in part, could be a center for kiosk/parking
- Conflicts with different users to be addressed
- Boardwalks may be necessary

- **Maintainability**. Maintenance must be an important consideration for the Riverwalk to succeed in the long term. The trail and surrounding areas should be designed to minimize icing and anticipate snow storage and removal, unless segments are designated as part of a network of winter recreation trails (e.g. snowshoeing, cross-country skiing).

> *"Repair and maintenance of the Camden sidewalk and trail network is the responsibility of the Camden Public Works Department. Sidewalks are maintained year round for resident and tourist use, and sidewalks are repaired as money and time permit. The cost of sidewalk maintenance and repair is part of the larger public works budget."*
>
> *(Camden Rockport Pathways Master Plan, 2007)*

COMMUNITY INPUT:

- Maintenance must be kept up – need trash cans

- **Connectivity:** While the focus of the Riverwalk project has been on the connection between Shirttail Point Park and the Harbor, the participants in the Public Forums have expressed also strong desire for future connections with nearby existing trails, neighborhoods, and recreation areas such as the Camden Hills Park. Visibility will be a high priority as efforts are

made to achieve the goal of connectivity. Wherever the Riverwalk intersects roads or other sidewalks, or connects to open space on abutting parcels, there may be opportunities for signature materials (bollards, pavement, portals, plantings, etc.) These major entry points to the Trail will help to increase its visibility and use. The details and 'branding' of the Riverwalk will promote its use.

COMMUNITY INPUT:

- Signing could link to cell phone by scanning Quick Response (QR) codes
- Maps should be used to encourage use, kiosks, brochures
- Future connections all over town are possible (Snow Bowl, State Park, etc.)

❖ **Amenities:** While the Riverwalk can be fully functional with just grading and surface improvements, certain amenities will increase its visibility, visual and cultural interest, and give it a personality that is uniquely Camden. Amenities may include plantings for seasonal color, seating areas, interpretive signage, trail markers, directional signs (especially at intersections), water features, artworks, and lighting.

COMMUNITY INPUT:

- At the Shirttail end – access for swimming

❖ **Natural Resources**: Even in a developed area such as downtown Camden, there are plants, mammals, birds, and insects that make up an ecosystem. Having the trail go by the Elementary School and connect to the Harbor provides a natural set of lessons on the interdependent web of nature. Organizations such as **Maine Rivers** (www.mainerivers.org) can provide information on dams, culverts, and restoration of natural fisheries. Members of the Study Team noted the natural animal and plant communities as described in the Inventory section above.

COMMUNITY INPUT:

- Educational opportunities (history/nature)
- Have interactions with the water, protect water quality

❖ **Phasing**. Community funded trails are typically developed in phases as resources become available. The Schematic Plan for the Riverwalk recommends a phased implementation approach, knowing

Seeing the value of each discrete jewel in the "Emerald Necklace" allows for patience, and calls for creativity as we problem-solve around the missing links and strive for a River-to-Harbor design vocabulary that easily identifies the trail in a recognizable and memorable way.

that amenities and additional improvements can be installed at a later date without disturbing what has already been built. The overall vision for the trail anticipates public spaces, plantings, entranceways, and other features that will ultimately be provided by the private sector.

COMMUNITY INPUT:

- Keep generating excitement for the project/create a vision
- Focus on town-owned properties initially

C. Proposed Schematic Design: Responding with a Plan

Although there has been progress in finding landowners willing to allow the pathway along their riverfronts, no trails sections on private property will be shown until the property owner indicates a willingness to allow an easement on their property.

In order to make the details of each pathway section easier to view, and to have space to provide more information and details, the trail has been divided into segments between ten points, as described in the Existing Conditions above. Dividing the trail into segments also makes it easier to see how the plan can be implemented in phases, and it shows more clearly what parts of the trail are already useable and where work needs to be done to secure access in the future.

The final location of the trail will drive the need for bridges or crossings, but the Study Team recommends a unifying design for these components. In areas where the right-of-way can accommodate a 12' trail, it is recommended that a trail of that width be constructed in order to accommodate multi-uses -- like walkers and bikers using the trail at the same time. It is also possible that portions of the trail might also serve as cross-country ski trails. The surface recommended for many portions of the trail is called "Superhumus" which contains a mixture of wood fiber and gravel among other things. The surface is ADA compliant, will accommodate bikes, wheelchairs, and strollers, and is especially favorable in woodsy portions of the trail.

No sections of proposed trail will be shown on private property until the property owner indicates a willingness to allow an easement on their property.

When trails are multi-use, guidelines help ensure the uses remain compatible. No motorized vehicles and dawn-to-dusk hours are two common guidelines. If the Town does permit dogs on certain sections of trails, then rules requiring leashes and places to dispose of dog waste are helpful. The Town should bear in mind, however, that when trails cross private property, it may not be appropriate to permit dogs on these sections especially if property owners have concerns in this regard. The Town should also consider where there might be opportunities to eventually link to other existing or proposed trails, and not take actions that would preclude those

connections in the future. One possible future connection shown on the Schematic Plans is to the Mount Battie carriage trail, but there are endless possibilities in the area.

Downtown village locations are good places to include some opportunities for interpretive history, and to incorporate the trail location into the infrastructure. Boston does this with the Freedom Trail where sidewalks have colored brick trails for visitors to follow. There will be a need for the Town to develop signage and informational brochures to help people find and use the trail, and the more special the trail is the more visitors will want to stay longer in Town simply because it is here.

The Design Palette will be as follows:

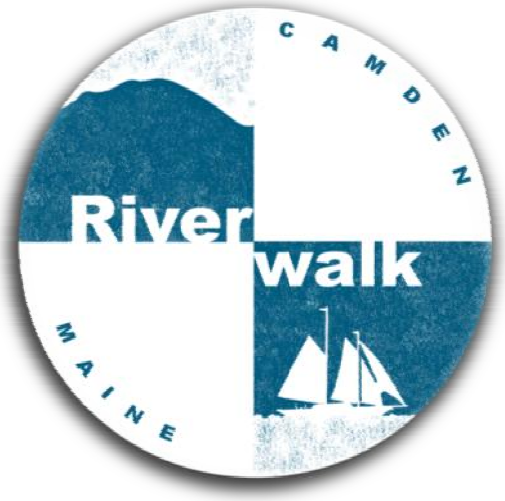
1. Surface Materials

Use a variety of materials, responding to the character of the surrounding land. In general, from the Tannery site north to Shirttail the materials are 'soft', and from Tannery site to the harbor they are 'hard', with some exceptions. All surfaces must be ADA accessible.

- Superhumus (wood fiber and gravel mix) in woodland and natural areas (example: Seabright Park), see details at: http://casellaorganics.com/products/mulch/superhumus
- Stone dust in natural areas with heavier traffic (example: Tannery Site river trail, secondary trails in Middle School river frontage)
- Asphalt pathways (example: village and downtown areas with more traffic, and primary trails at Middle School leading to woodland areas)
- Boardwalks with curbs to minimize impact on wet areas (example: crossing tributary streams in School and Wastewater Treatment properties, future parcels with floodplain or wetland areas)
- Bridges: a single bridge is proposed to cross river behind school when land on other side becomes continuously accessible.
- Pavers: used in downtown blocks to replace old sidewalks.

2. Signage

The Study Team recommends the use of a specific logo for the Riverwalk as a means of making the pathway visible as its own brand within the greater Camden Rockport Pathways network. Visibility equals use, and use equals safety and increased support. The logo shown here is an example of the bold clean graphics which create an identity. It represents the town motto "From the Mountains to the Sea" with a profile of Mt. Megunticook and a schooner from the harbor.



- The logo should appear as integrated with site details in many ways as seen in Appendix A, Figure 8 - **Site Details**:
- Information signs at key access and trailhead locations (examples: Shirttail Point, Seabright Park, Tannery parcel, Middle School, Knowlton Street Bridge, Harbor Park, and Public Landing) Information should include distance in miles to next access location, accessibility (grades and barriers) and amenities or features of interest, especially connections to regional open space network (Ragged Mountain, Bald Mountain trail systems). Many users would also use a QR code app to get more information.
- Create granite block or wood bollard entry detail at the same trailhead locations and wherever trail enters woods or neighborhood, as a durable signal that the trail is open to the public.
- Where trail goes through wooded areas, place logo at 5' height on trees at 50' (+/-) intervals.
- Where path is on town sidewalks, place logo on trees or utility poles at 5' height at 50' intervals.
- Where path is on pavement, stencil logo on pavement, or embed embossed logo disc (metal or cast resin) at 100' intervals.

- Where path is on asphalt, within street rights-of-way, apply blue stripe with thermoplastic product to create continuity especially in Downtown area. Place stripe at street crossings as well. Variations may include blue pavers and blue paint, depending on permanence desired and phasing of project. See Appendix A, Figure 9.

3. Other Amenities

- Benches
- Bike Racks
- Water Fountains
- Pet Waste Bags
- Trash Receptacles

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V. RECOMMENDATIONS FOR IMPLEMENTATION

A. Permitting: Doing it Right

Construction of the Riverwalk Trail is potentially subject to the regulatory authority of the **U.S. Army Corps of Engineers (Corps)** and the **Maine Department of Environmental Protection (DEP)**, depending upon the final alignment of the trail and impacts to wetlands. The Trail is also subject to review by the Town of Camden under its Zoning Ordinance and site plan review requirements.

The Study Team evaluated potential permitting processes for the proposed Riverwalk Trail at a planning level based on available resource mapping, input from Camden's Code Enforcement Officer, and the Town's recent experience permitting the section of trail at the old Tannery Site. The Study Team also consulted with regulatory staff at the Corps and DEP. Moving forward, however, additional site-specific studies – including formal wetland delineations – would be required to permit the Trail, either in segments or in its entirety. See Appendix A, Figure 10 for known Wetland and Floodplain locations.

Publicly-accessible trails, especially those with an environmental education component, are generally viewed in a favorable light by state and federal regulatory authorities. That said, impacts associated with trail construction must follow the same rules as any other development activity. Primary potential impacts of concern to state and federal regulators are associated with wetlands, streams, and vernal pools and applicants must demonstrate that they have taken measures to avoid impacts to these resources to the greatest extent practicable. As an example, if a trail crosses a wetland, regulators will want to know if the impact can be avoided (e.g., place the trail in an upland area) or minimized (e.g., place the trail at a narrow point of the wetland, or on the edge of the wetland, and/or use boardwalks instead of fill). This need to avoid and minimize wetland impacts must be carefully considered when determining the final location for any proposed trail segments.

Both the Corps and the DEP require use of the same wetland delineation manual, so a single wetland delineation effort meets the requirement of both permitting processes. Wetland delineations normally need to be completed during the growing season, although the accepted delineation season often stretches from April through November. Vernal pools, on the other hand, can only be identified in the spring. Both wetland delineations and vernal pool surveys must be conducted by qualified wetland scientists, usually employed by a private consulting company. Such surveys can only be conducted with landowner permission, which is also required when submitting permit applications.

- **FEDERAL:** At the federal level, wetlands and vernal pools are regulated by the Corps under Section 404 of the Clean Water Act. In Maine, many wetland permit applications are handled in a joint application to the Corps and DEP, depending on the area of wetland impacts. As of 2013, the Corps permitting process is managed under a General Permit for Maine, but a draft region-wide General Permit is currently going through public review. Current Corps requirements should be checked at the time of final project design by calling the Maine Field Office of the Corps (207-623-8367).

- **STATE:** DEP regulates wetland and stream impacts under the Natural Resource Protection Act (NRPA) through a Tiered permitting process that is based on the acreage of wetland impacts and the types of wetlands. Some projects may also qualify for a simplified permit-by-rule (PBR) process if, in the case of trails, the impacts are only adjacent to regulated resources and not actually in them. This was the case when the trail on the old Tannery Site was permitted. DEP also regulates impacts to Significant Wildlife Habitat (SWH), but as of 2013 no such habitats are known to occur in the vicinity of the proposed trail. This could change with new information; DEP should be consulted early in the design process for the trail.

SUMMARY

Trail and pathway activities which will require permits:

- *Impact on wetlands*
- *Earthwork within buffer area of resource*
- *Clearing, limbing, and topping of vegetation within Shoreland or Resource Protection districts.*

Permits may be required by:

- *Town of Camden*
- *Maine Department of Environmental Protection*
- *Army Corps of Engineers*

Trail design should:

- *Seek to avoid or at least minimize impact.*
- *Be done with guidance from Town CEO and DEP.*

- **LOCAL:** Much of the proposed Riverwalk Trail is situated in Camden's Shoreland Zone associated with the Megunticook River. According to Camden's Code Enforcement Officer (CEO), permitting the trail will require Site Plan Review under the Town's ordinances. The CEO, therefore, should be consulted early in the design process when seeking to permit final trail alignments.

B. Cost Estimates: Tools for Moving Ahead

Based on all available data, including an understanding of future land uses, phasing and improvements, we have developed the cost estimates to a schematic level in keeping with the level of design. This level of detail will provide enough information that the Town will be able to prioritize capital expenditures and apply for grants and funding.

(See Appendix B - Cost Estimates)

C. Access and Incentives: Easements, etc!

Numerous mechanisms exist to provide incentive to private home and business owners so that they will join in partnership with others in creating trails and open spaces for the benefit of communities. The best resources for exploring and understanding the options are readily available at Camden's Town Offices and at **Coastal Mountains Land Trust** (CMLT) in Camden.

The following is a brief summary of the methods for developing access to or over private land. The particular choice made by a landowner will depend on his or her long-term stewardship goals.

- **Conservation Easements:** providing permanent protection while retaining ownership of the land. Easements can reduce taxes by reducing development potential. Easements are useful when the land is not available for permanent acquisition by the Town. Easements are often given to one group but held by a neutral third party or nonprofit land trust. The donation of an easement may qualify as a charitable gift.

- **Donating Land:** Either a portion of a property or the entire property may be appraised and then gifted to the non-profit organization for the purpose of adding to an open space and trail system. If land is highly appreciated and would prompt a high capital gains tax, donating a portion or the entire lot can be a prudent move. Donating a 'remainder interest' can allow

current residents to live on the property during their lives, and ensures that the land is preserved in the public spirit.

Maine Coast Heritage Trust publishes the very user-friendly "Conservation Options, A Guide for Maine Landowners"
http://mcht.org/mchtnews/pdf/mchtconsoptions.pdf

- **Selling Land:** if a property is highly valued by the community, a non-profit entity may buy the parcel, place an easement on the portion desired for a trail or natural resource open space, or portion off the land desired for a trail giving it to the Town or a third party, and then re-sell the lot either with the easement or without the trail portion included. Portland Trails has become well established after twenty years and is now able to effect such transactions more easily than landowners. This process is ideal if current residents wish to move and will accept the agreement of those representing the interests of a project such as the Riverwalk.

- **Conservation Buyers**: Those who care deeply about the open space and trail vision of the Camden-Rockport Pathways or other such organizations can aid by privately acquiring and then donating land or easements to allow public use.

- **Tax Relief through easements**. Landowners can apply for tax classification in the State of Maine's farm, open space, or tree growth tax programs. Other areas have taxation incentive programs such as a Public Benefit Rating Systems which encourages voluntary resource conservation and public access, assessing land at a value consistent with current rather than 'highest and best' use. In such systems (see King County, Washington State) percentage points by which property taxes are reduced are given for aquifer protection, buffers, forest stewardship, historic, and other cultural values; however the greatest number of points offered is for an active trail linkage and public passage.

D. Economic Impact: Building Community

The Camden Riverwalk is intended to provide a multi-use path from Shirttail Point to Downtown Camden and the waterfront along the Megunticook River. The proposed improvement plan envisions that initially the Riverwalk will consist of a combination of riverside segments and segments that utilize sidewalks along existing streets but that over time, as riverfront property owners become more comfortable with the Riverwalk, most or all of the path will be along the river. From an economic benefit perspective, this evolution has important consequences for the project as is discussed below. In addition, the Riverwalk will connect with the East Coast Greenway enhancing its potential for use.

While there are broad society-wide economic benefits from increased walking and healthier life-styles, this analysis focuses on the direct benefits that can result from this project. This is not to dismiss or to downplay those societal benefits – the emphasis of health insurance providers and large employers on "wellness programs" is testament to the real economic value of life-style changes. While the Riverwalk will undoubtedly contribute to a healthier lifestyle in Camden, the economic benefits are difficult to quantify.

The direct economic benefit resulting from pedestrian and bicycle facilities comes from three general groups of users: 1) local residents who use the facility to move around the community, 2) residents of the larger region who come to the facility for an outing to use the trail, and 3) visitors to the community who use the facility as part of their tourist experience. The economic impact of these three user groups differs significantly. Here is a brief overview of the likely impacts of the three users groups:

- Local users of the Riverwalk will likely have a very limited economic impact since they will use the facility primarily as part of their day-to-day life. The Riverwalk has the potential to generate some new spending at local businesses by users who go for a walk on the Riverwalk and pick up a beverage or stop for coffee.
- Regional users of the Riverwalk will likely be people who live within an hour's drive (maybe 50 miles) who make a trip to Camden to use the Riverwalk as a somewhat local recreational

experience. This Riverwalk trip may be the sole purpose of their visit or may be combined with other activities. This group of users has been documented to be a major source of users on other trail systems. Purchases by trail users fall primarily into the category of food and beverages such as stopping along the route to buy a beverage or snack or stopping at a store or restaurant before or after using the trail for a beverage, snack or meal. Various studies of the economic impacts created by existing pedestrian and bicycle trails report various levels of spending but typically these studies indicate that between 25 and 35 percent of users make a purchase while using the trail and that these purchases typically are in the $1-$5 range.

- Tourists who are visiting Camden primarily for other purposes will also be potential users of the Riverwalk. Some visitors may choose to explore the Riverwalk as part of their stay. Their economic benefit will be similar to regional users. A second potential from this source is extending the length of time and thus spending that visitors do in Camden. Camden currently offers visitors a number of attractions and the Riverwalk if it evolves into a destination recreational path will offer an additional and somewhat unique alternative activity especially for visitors who are seeking more active vacation activities. A study of the Stowe recreational path in Stowe, Vermont (a somewhat similar situation) found that visitors to Stowe staid a half to a day longer on average than visitors to other similar Vermont tourist destinations. The economic impact of such a demand resulting from the Riverwalk may be more muted in Camden at least in the near-term. During peak season, the community and its tourist related businesses operate at or close to full capacity so the local economy may have a limited ability to in fact capture any additional demand generated by a destination Riverwalk. However in the shoulder seasons of May/June and October when the capacity of the community is not fully utilized, a destination Riverwalk offers the potential for generating additional overnight stays in the community with the attendant spending for food and beverages, services, and gifts.

A review of the literature with respect to the economic impact of the proposed “Riverwalk” suggests that the type and magnitude of the economic impact will be a function of the actual configuration of the facility when it is constructed. The economic impact will vary depending on whether the Riverwalk is primarily a “local use” facility that is used by residents of the

community or whether it evolves into a "destination" recreational facility that is attractive to people throughout the Midcoast region and to tourists. It is our opinion that for the Riverwalk to reach the level of a destination facility, it will need to provide substantial segments of continuous trails along the river. To the extent that parts of the walk occur on sidewalks on existing streets, it will decrease that potential. Therefore, we anticipate that the direct economic benefit of the Riverwalk will be relatively modest initially, but that as facility matures and evolves into a continuous riverfront recreational experience as property owners become comfortable with the concept, the benefit will grow substantially as the Riverwalk becomes a "recreational destination" for both the Midcoast region and Camden tourists.

A key factor in generating economic benefit from the Riverwalk will be marketing and promotion. This will involve making the Midcoast region aware of the Riverwalk and undertaking activities to promote it within this area. In addition, it will be important that the Riverwalk be incorporated into the area's tourism promotional activities and visitors encouraged to explore the Riverwalk to experience more of Camden that the downtown and waterfront.

There is a large amount of information available on the Internet relating to the economic impacts of various types of outdoor recreational facilities much of it dealing with trails. Planning Decisions conducted a review of this literature to identify studies that may be appropriate in considering the potential economic impacts of the public landing and Riverwalk improvements. The following provides an overview of the results of that review and notes the findings that seem most appropriate to the Camden situation.

- The following notes of caution are in order regarding the information contained in this section:
  - While there are a large number of documents available on the Internet that purport to report on the economic impacts of various facilities, many of these simply report or summarize the findings of a fairly limited number of actual impact studies. In many cases, the same language about the same studies appears over and over in the literature as it is copied from report to report.

- Many of the studies of the economic impact of "trails" involve rail trails or similar facilities many of which are much longer than the Riverwalk and have a high percentage of bicyclists as users. Bicyclists appear to have different spending patterns than pedestrians.

- In some cases it is difficult to assess the nature of the trail and users from the information provided to evaluate the appropriateness of the information to Camden.

- As is often the case, many of the studies are reported by groups that have an interest in promoting the type of facility being studied.

❖ **Rails to Trails Conservancy -** This organization published a report in 2009 summarizing economic studies conducted for seven rail trails in Pennsylvania as well as studies of seven other rail trails outside of Pennsylvania. It appears that most of these trails were relative long (over 20 miles) with a large share of bicyclists. The report looks at spending on equipment as well as soft goods or purchases during trail use on things such as food and beverages. Interestingly, in spite of their length, the vast majority of users for many of the PA trails were local residents.

http://www.railstotrails.org/resources/documents/resource_docs/Comparison_of_Trail_Users_Surveys_FINAL.pdf

❖ **Stowe Recreational Trail** - There are numerous references in the literature to the economic impact of the Stowe Vermont recreational trail. This is probably a good comparison to the Riverwalk in many respects:

- Stowe Bike Path (Recreational path) - Stowe's bike path is as an all year round recreational trail. You can bike, hike, stroll, and ski on it, 365 days a year. The 5.3-mile paved trail starts in Stowe Village, next to the Stowe Congregational church, winds its way through the woods and meadows, and crosses the West Branch River 11 times on arched wooden bridges. Numerous shops, lodges, and restaurants are accessible from the path.

- In Vermont, tourists stay about one day longer in Stowe than in the state's other resort areas. This extra day and the revenue it generates are attributed to the Stowe

Recreation Path, a 5.5-mile multi-use trail. http://conservationtools.org/guides/show/97-Economic-Benefits-of-Trails#ixzz2enDoZivg

- "The Stowe Recreation Path, completed in 1989, is a great source of civic pride. Children and adults can travel across town without competing with automobile traffic. The path shows off the splendor of one of our nation's most beautiful valleys, whether one is commuting to school or taking an after-dinner stroll or brisk fitness walk. The path increased summer hotel room revenues by 24 percent, while the remainder of the state saw only 5 percent growth. Local residents credit the path with drawing visitors to Stowe for walking, running, bicycling, and cross country skiing-and also for encouraging them to stay longer". **A Toolbox for Pedestrian Advocates**, America Walks, 2002
- "**Economic Benefits of Trails and Greenways**," published by the Rails to Trails Conservancy: http://www.dep.state.fl.us/gwt/community/PDF/Economic%20Benefits%20of%20Trails%20and%20Greenways.pdf
- **Economic Impact of Walking and Bicycling in Vermont (2012):** http://vtransengineering.vermont.gov/sites/aot_program_development/files/documents/ltf/BikePedFinal%20Report%20Econ%20Impact%20Walking%20and%20Biking2012.pdf

❖ **Illinois Trail Study:** "More than one third of people surveyed on Illinois trails spent money in local restaurants or bars as part of their trip, and just under one third reported using the trail frequently, 21 or more times in the past year. " http://www.bikesbelong.org/resources/stats-and-research/statistics/economic-statistics/#sthash.ckxdbKX5.dpuf"

❖ **Cape Cod Rail Trail:** A 1993 survey of 38 businesses along the Cape Cod Rail Trail in Massachusetts found that 24 percent of the business owners cited the rail-trail as one reason they opened or acquired their business. This same survey found that 60 percent of the businesses expanded their business and of those, one-half considered the rail-trail a prominent factor in this decision. (Massachusetts Department of Environmental Management, 1993).

http://www.railstotrails.org/resources/documents/whatwedo/TrailLink%2007%20program_Economic%20Develop.pdf

- **East Bay Path: 2002 Bicycle Transportation User Survey; Developing Intermodal Connections for the 21st Century (U of RI, RIDOT, 2004)- Section 4 – Economic Impact**
  The 1996 East Bay survey conducted by Brown/DEM found that 88 percent of path visitors spent money along the path with an average expenditure of $5 per outing. The most commonly purchased item was food/drink. In this survey, 83 percent of East Bay path visitors spent money along the path; 80 percent purchased food/drink and 43 percent of the purchases ranged from $1-5. Respondents to the 2002 user survey spent an average of $1-5 per outing. Bicycle tourism has the potential to reap additional tourist dollars for Rhode Island's economy. However, this was not evident from results to the question "did bike paths influence your decision to visit Rhode Island." Only the East Bay Bike Path (34 percent) appeared to attract touring cyclists. The reasons for this being the location of the path along scenic upper Narragansett Bay and more well known because of its long existence. RIDOT's bike map, A Guide to Cycling in the Ocean State, has been a catalyst for promoting bicycling as a recreational, commuting, and touring option.
  http://www.dot.ri.gov/bikeri/east_bay_bike_path.asp

- **WOW Trail Economic Impact Study:** This is a study of the potential economic benefits of the construction of a trail between Belmont and Meredith New Hampshire. It provides data on the economic benefits of other similar facilities.
  http://wowtrail.org/wp-content/uploads/sites/10/2013/03/final-wow-trail-impact-study.pdf

E. Funding Sources: Partnerships with Camden

Funding for the development of the Riverwalk can come from two basic sources, outside grants primarily state and federal programs, and locally generated revenues. This sections looks at the potential for funding the improvements through those two sources.

1. Local Funding Approaches

There are a few ways that the Town can provide funding for some or all of the costs of the proposed improvements:

- General Fund – While funding improvements of this type through the General Fund is not typically the primary approach, it is important that it be included in the range of funding options. Many of the primary objectives for the Riverwalk involve improving pedestrian accessibility within the community and providing linkages between various community facilities. These roles of the Riverwalk make consideration of funding through the general fund reasonable.
- Friends Group – Some recreational trails have relied on "friends" groups or similar local efforts to undertake local fundraising for part of the project costs. For example, the Kennebec River Rail Trial between Augusta and Gardiner was funded in part through community fundraising. This can include seeking business sponsorships, individual contributions, and projects such as "selling" feet of the trail to contributors (buy a foot of the trail for $10 or $100).
- Sponsorships – Increasingly, communities have looked to local businesses to be the "sponsor" of community facilities. While this has involved primarily athletic facilities, communities such as Freeport have long-standing relationships with local businesses to provide funding for community activities and facilities.

2. Outside Funding Sources

The Town is already connected to the outside funding sources that are typically used for these types of projects. The following sources of funding are included primarily for reference:

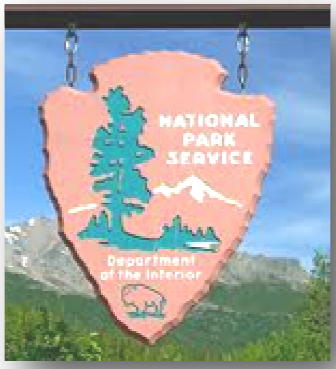
- Safe Routes to School – The Maine Department of Transportation makes grants to communities to provide and improve sidewalks or other pedestrian facilities that

provide improved pedestrian and bicycle access that enable students to walk or bike to school. The facilities must be located within two miles of an elementary or middle school. Some segments of the Riverwalk appear to meet the objectives for this program. Applications for funding are typically sought in the spring of even numbered years.

- Transportation Alternatives Program – The Maine Department of Transportation administers the Transportation Alternatives program (previously TEP) as part of its Quality Communities Program. This program makes grants to communities for up to 80% of project costs for a range of transportation improvements including sidewalks and pedestrian facilities. This program may be a source of funding for some of the improvements located in street rights-of-way.

- Recreational Trails Program – The Maine Division of Parks and Lands provides funding for the construction, improvement, and maintenance/restoration of recreational trails including the costs associated with the acquisition of easements or land necessary for trail improvements. The town is already using this program as a source of funding.

- Rivers, Trails and Conservation Assistance Program – The National Parks Service provides staff assistance to help organize and carry out projects that meet the services' national objectives including the development of trails. Assistance is provided through a competitive application process that typically occurs in October. The town is already aware of and connected with this program.



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APPENDICES

APPENDIX A

FIGURES AND MAPS

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Camden Riverwalk

LEGEND

- existing route
- proposed short-term
- proposed long range
- additional river frontage

FIGURE 1: RIVERWALK MAP

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Baker Design Consultants

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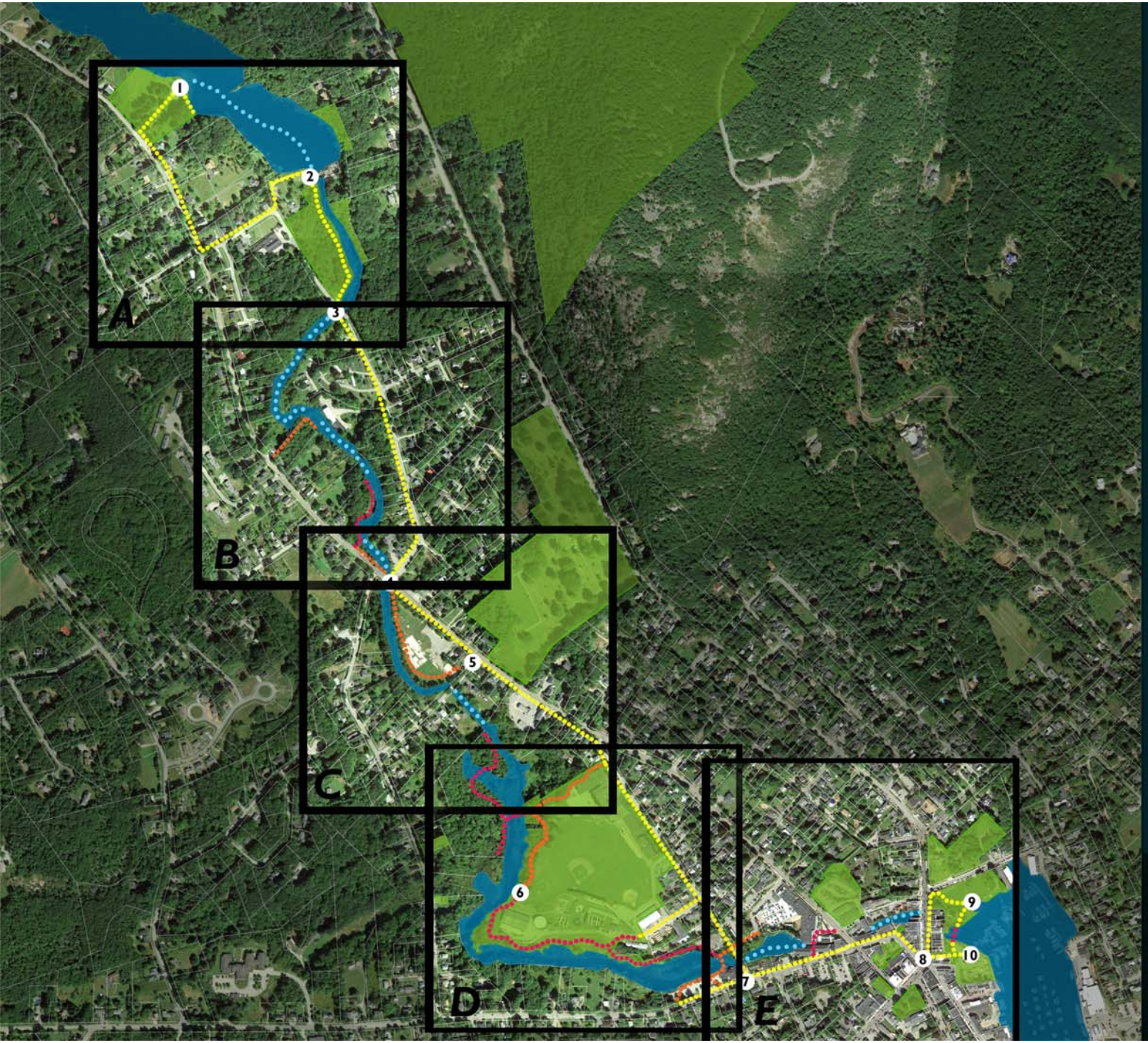

Camden Riverwalk

LEGEND

- existing route
- proposed short-term
- proposed long range
- additional river frontage

FIGURE 2: KEY TO AREA MAPS

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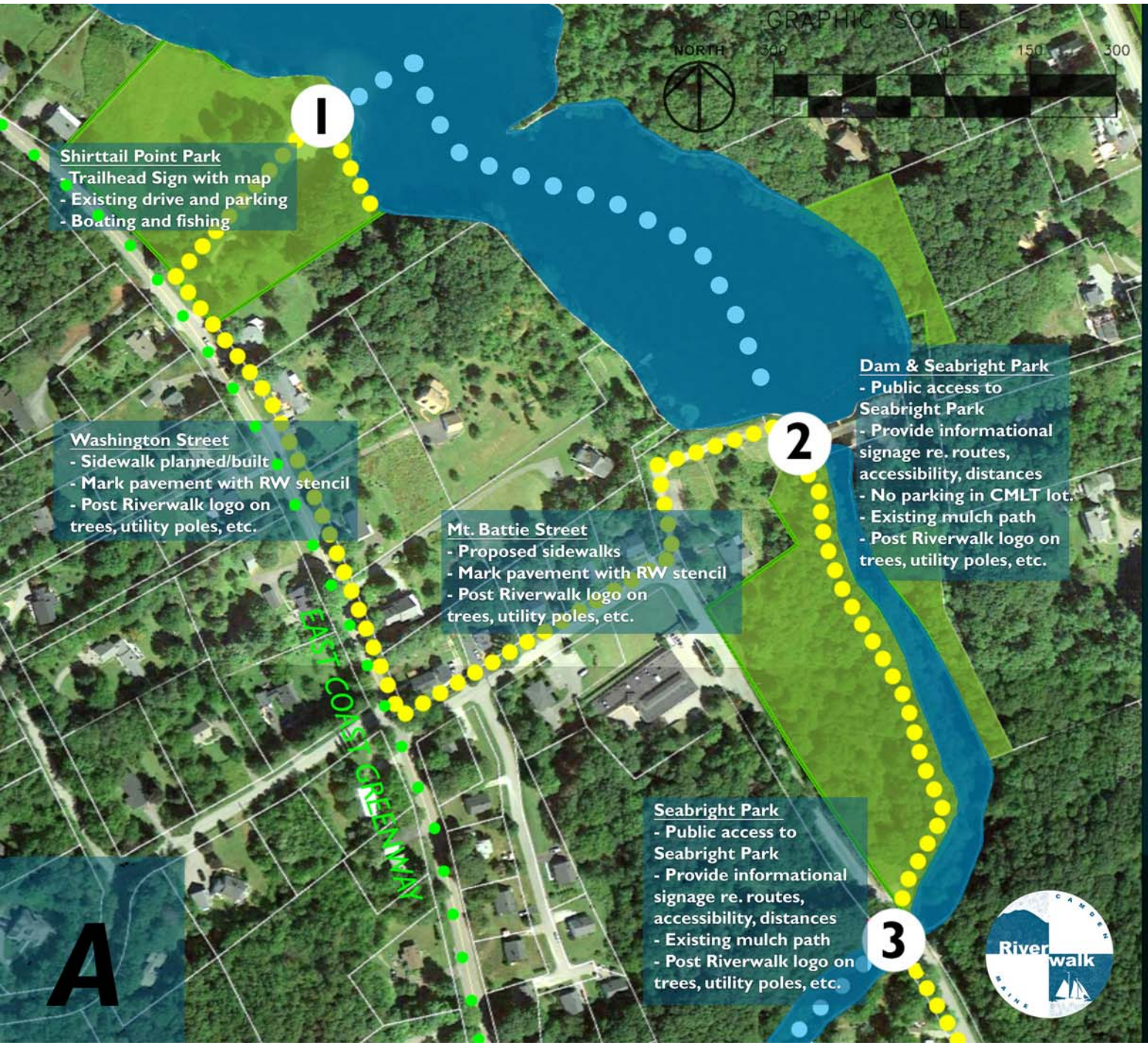

Camden Riverwalk

LEGEND

- existing route
- proposed short-term
- proposed long range
- additional river frontage

Location 1 to Location 2

TOTAL 2,200 lf
- existing sidewalks 1,210 lf
- proposed sidewalks 570 lf
- existing trail 420 lf, minor repairs for accessibility
- proposed 12" diameter stencils on pavement @ 40' intervals
- 6" diameter signs on trees/poles, @ 40' intervals , as well as at turns and intersections
- proposed amenities: trailhead kiosk, benches, picnic tables, granite block with carved logo at key points

Location 2 to Location 3

TOTAL 965 lf.
- existing trail 965 lf, minor repairs and resurfacing for accessibility
- 6" diameter signs on trees/poles, @ 40' intervals , as well as at turns and intersections
- proposed amenities: trailhead kiosk, benches, granite block with carved logo at key points

FIGURE 3: AREA A

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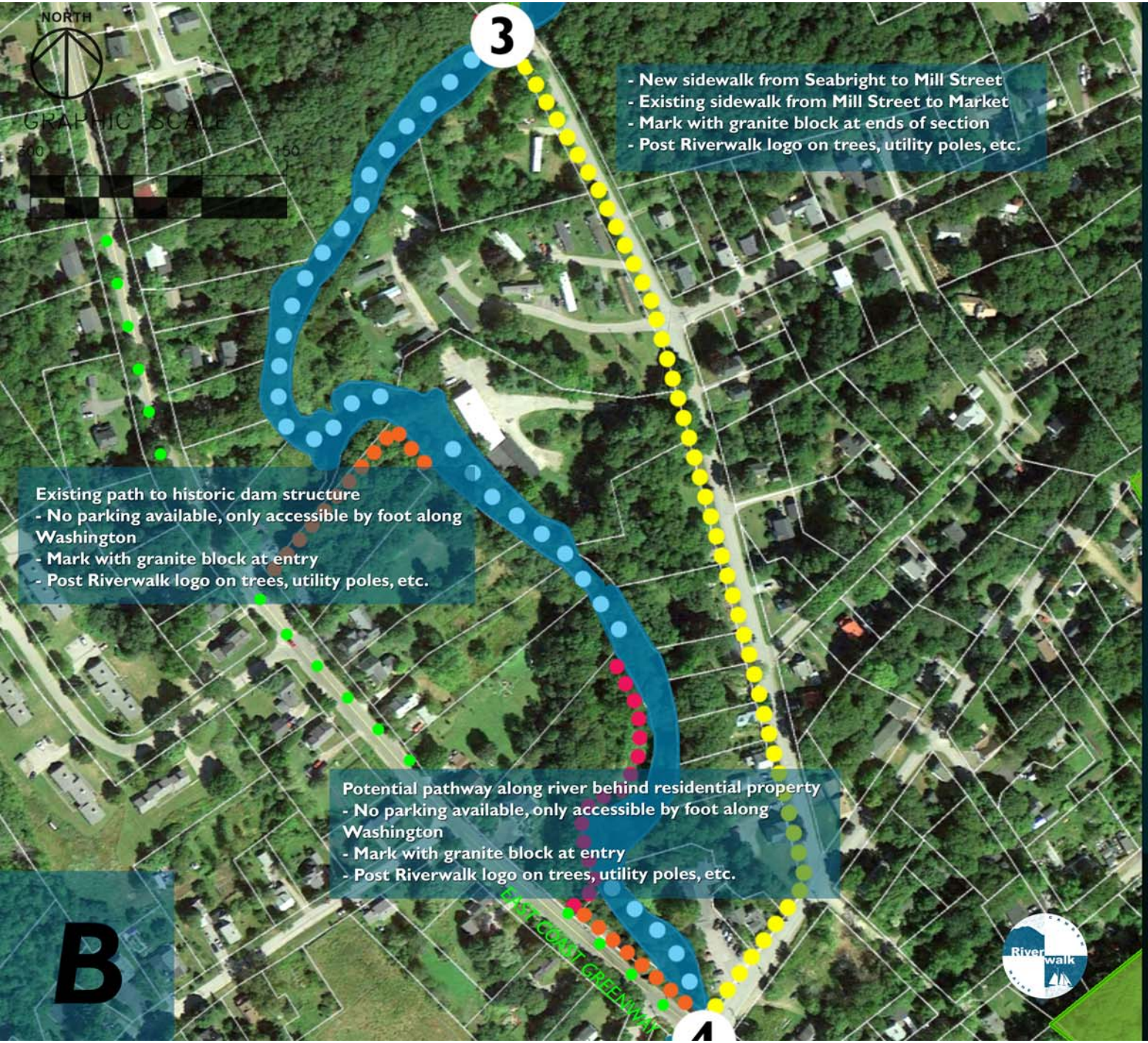

Camden Riverwalk

LEGEND

- existing route
- proposed short-term
- proposed long range
- additional river frontage

Location 3 to Location 4

TOTAL 1890 lf
- existing sidewalks 1,300 lf
- proposed sidewalks 590 lf
- proposed 12" diameter stencils on pavement @ 40' intervals
- proposed amenities: granite block with carved logo at key points

FIGURE 4: AREA B

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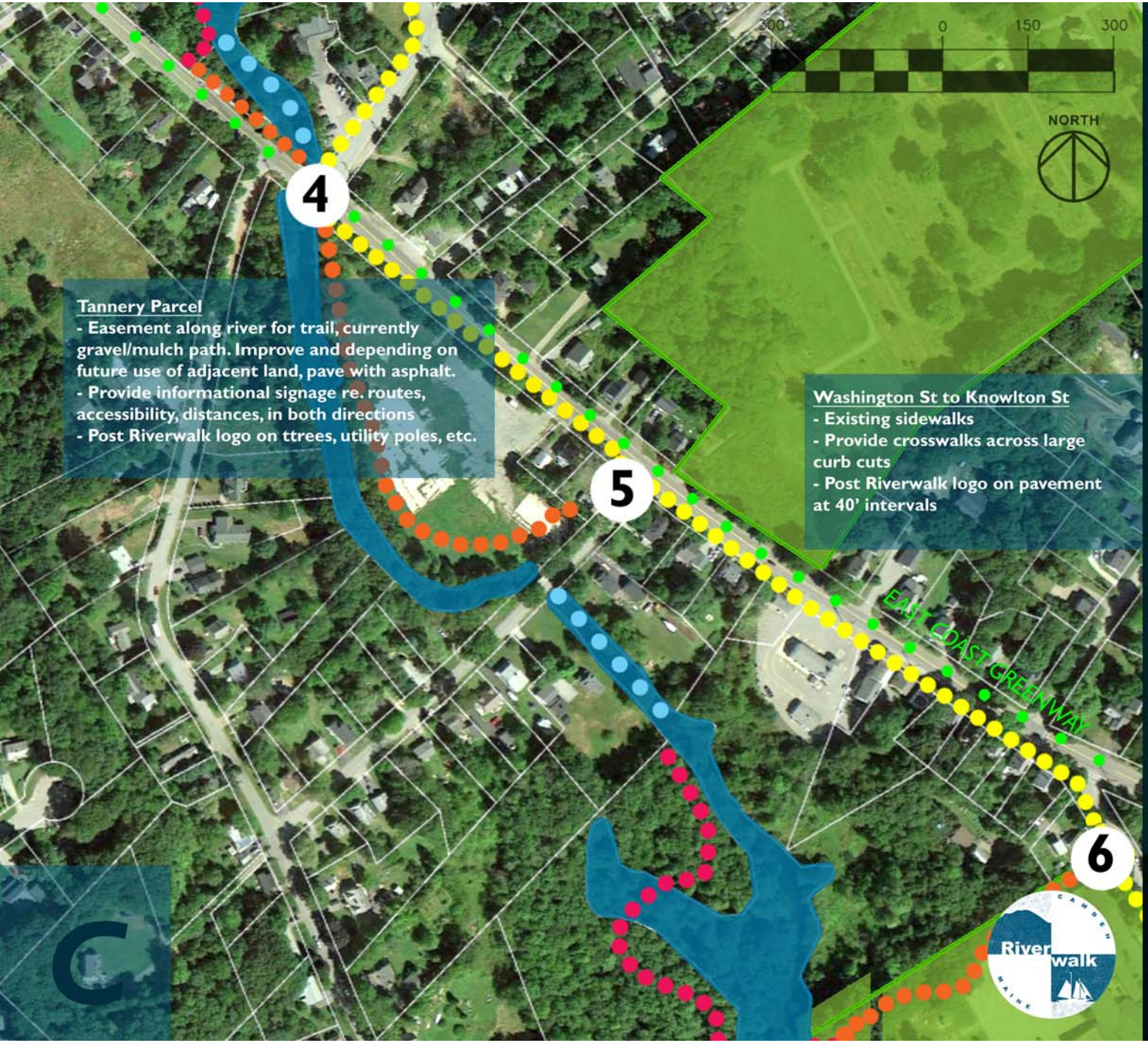

Camden Riverwalk

LEGEND

- existing route
- proposed short-term
- proposed long range
- additional river frontage

Location 4 to Location 5

TOTAL 1,123 lf
- existing trail 1,123 lf, minor repairs for accessibility
- proposed 12" diameter stencils on pavement @ 40' intervals
- proposed amenities: interpretive sign re. history, benches, picnic tables, granite blocks with carved logo at key points

Location 5 to Location 6

TOTAL 936 lf
- existing sidewalk 936 lf, minor repairs and new crosswalks for accessibility
- proposed 12" diameter stencils on pavement @ 40' intervals
- proposed amenities: granite block with carved logo at intersections or key points

FIGURE 5: AREA C

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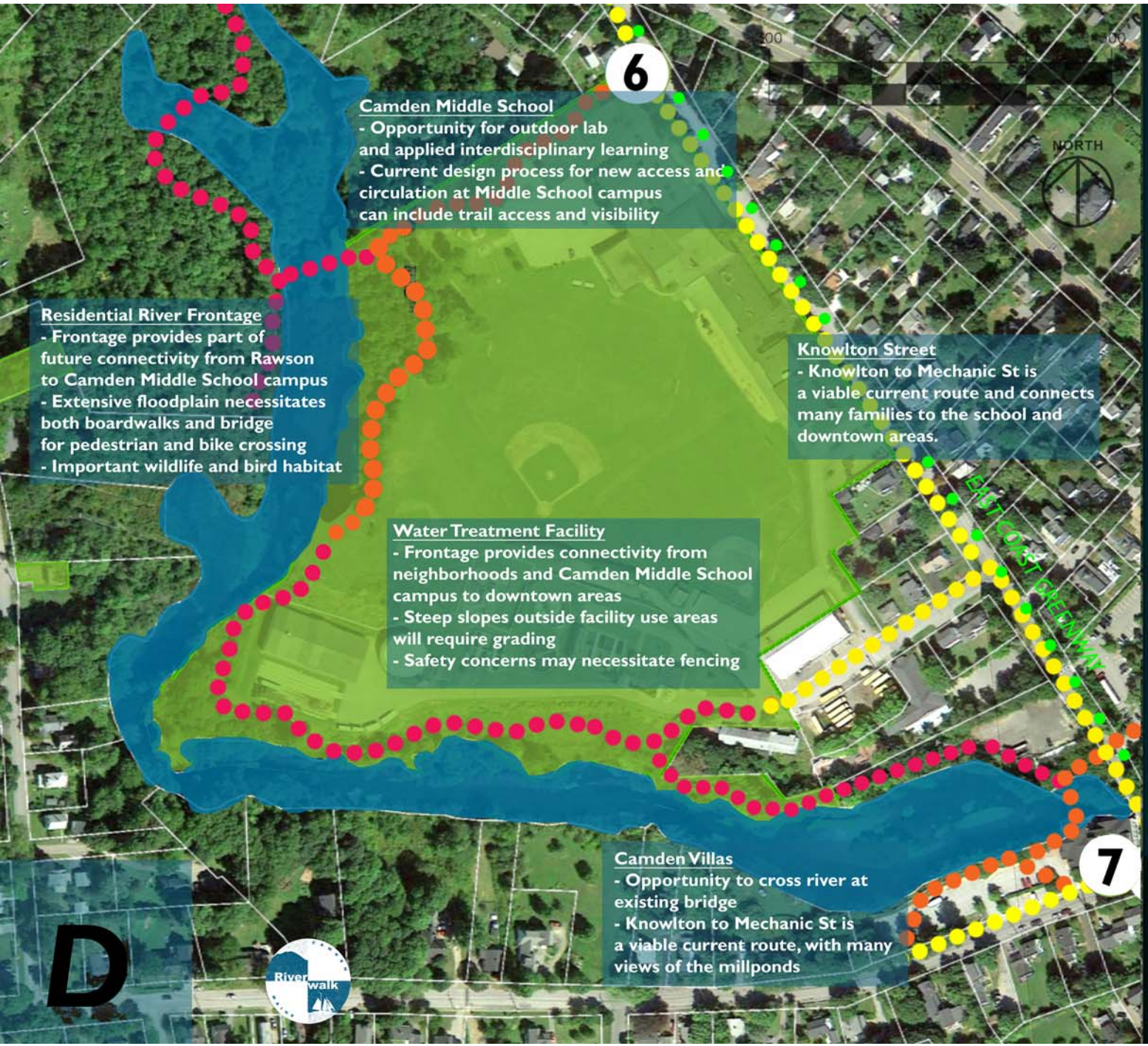

Camden Riverwalk

LEGEND

- existing route
- proposed short-term
- proposed long range
- additional river frontage

Location 6 to Location 7

TOTAL 3,000 lf

- existing sidewalks along Knowlton: 1,900 lf
- proposed paved trail segments: 800 lf
- proposed bridge for future connectivity
- proposed 12" diameter stencils on pavement @ 40' intervals
- 6" diameter signs on trees/poles, @ 40' intervals , as well as at turns and intersections
- proposed amenities: interpretive signs, trailhead kiosk, benches, picnic tables, outdoor lab study site, granite blocks with carved logo at key points

FIGURE 6: AREA D

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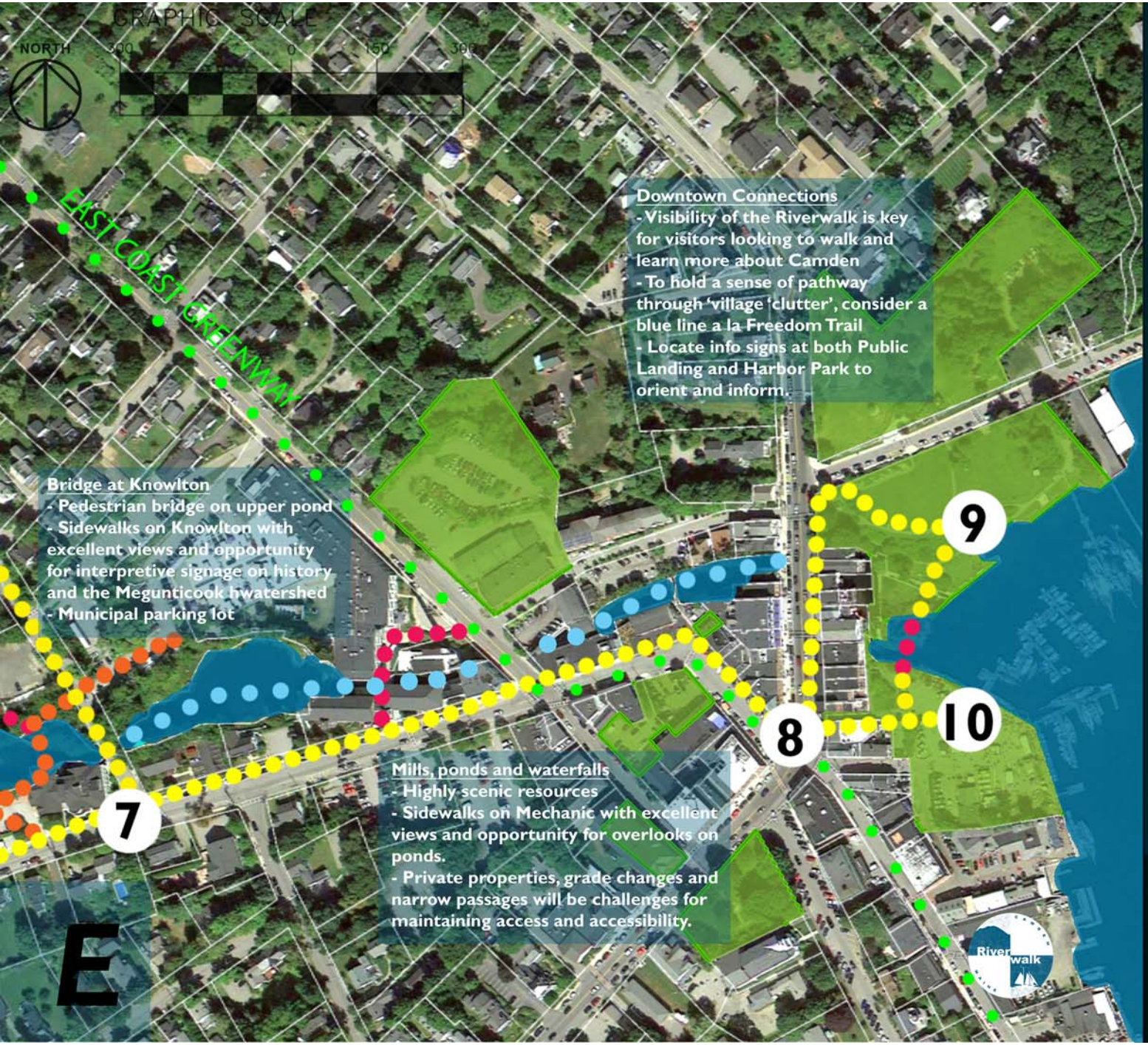

Camden Riverwalk

LEGEND

- existing route
- proposed short-term
- proposed long range
- additional river frontage

Location 7 to Location 8

TOTAL 1,240 lf
- existing sidewalks 1,240 lf
- improvements for crosswalks and accessibility to be included in Downtown project
- proposed 12" wide "RIVERWALK" blue stripe to guide visitors to waterfalls, ponds, historic features
- proposed amenities: benches, interpretive signs, granite block with carved logo at key points

Location 8 to Location 9

TOTAL 790 lf
- existing sidewalks 790 lf
- improvements for crosswalks and accessibility to be included in Downtown project
- proposed 12" wide "RIVERWALK" blue stripe to guide visitors to waterfalls, ponds, historic features
- proposed amenities: benches, interpretive signs, granite block with carved logo at key points

Location 8 to Location 10

TOTAL 300 lf
- existing sidewalks 300 lf, to be included in Public Landing improvements
- proposed amenities: Blue stripe, Riverwalk logo

FIGURE 7: AREA E

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Camden Riverwalk

FIGURE 8: SITE DETAILS

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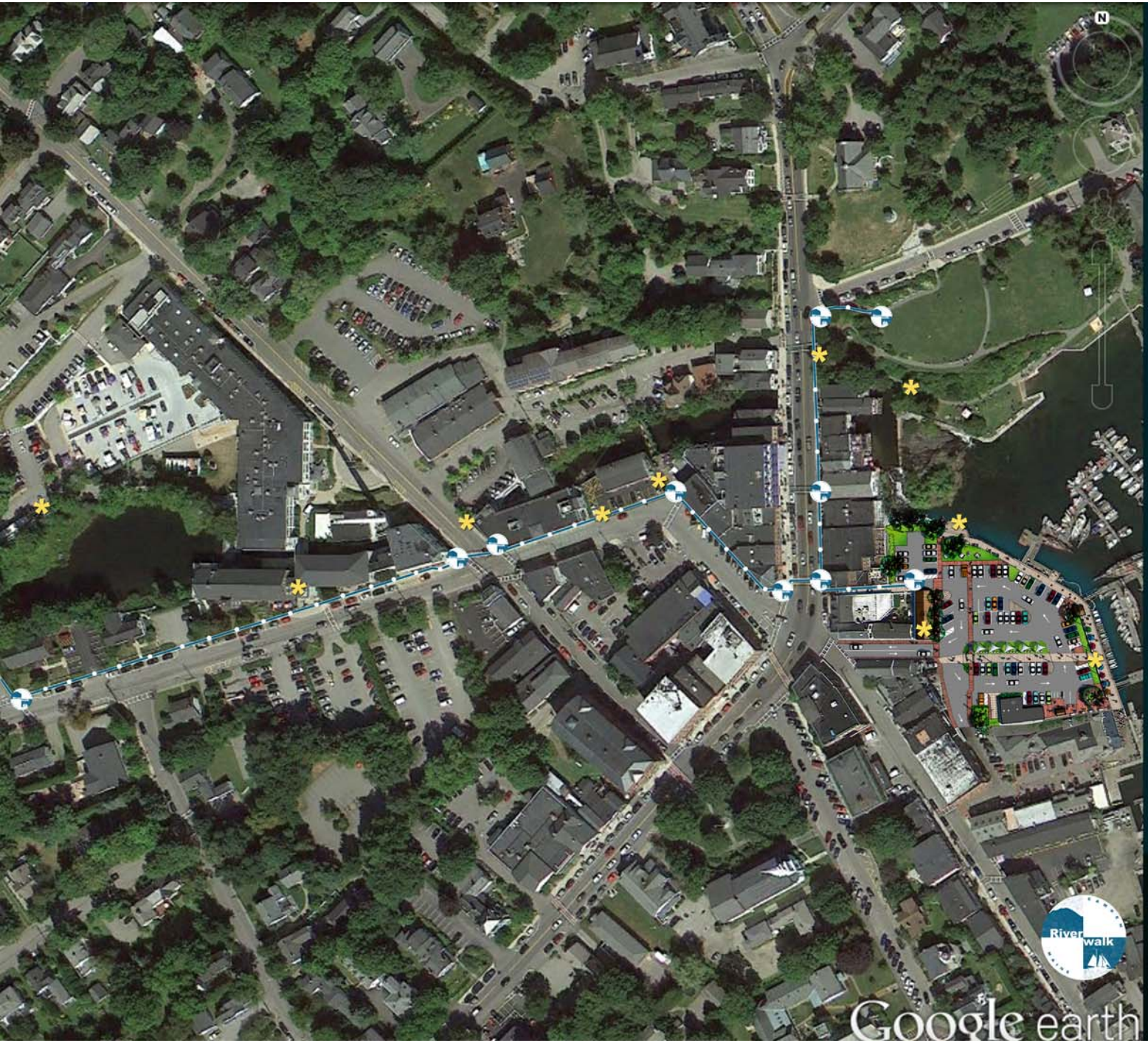

Camden Riverwalk

LEGEND

Blue stripe with logo

Logo on granite block, or granite or bronze disk in pavement

Views and places of interest / potential expansion of trail system as access becomes available

Interpretive and Visitor Info signs to be developed with C-R Historical Society and CDBG.

FIGURE 9: DOWNTOWN

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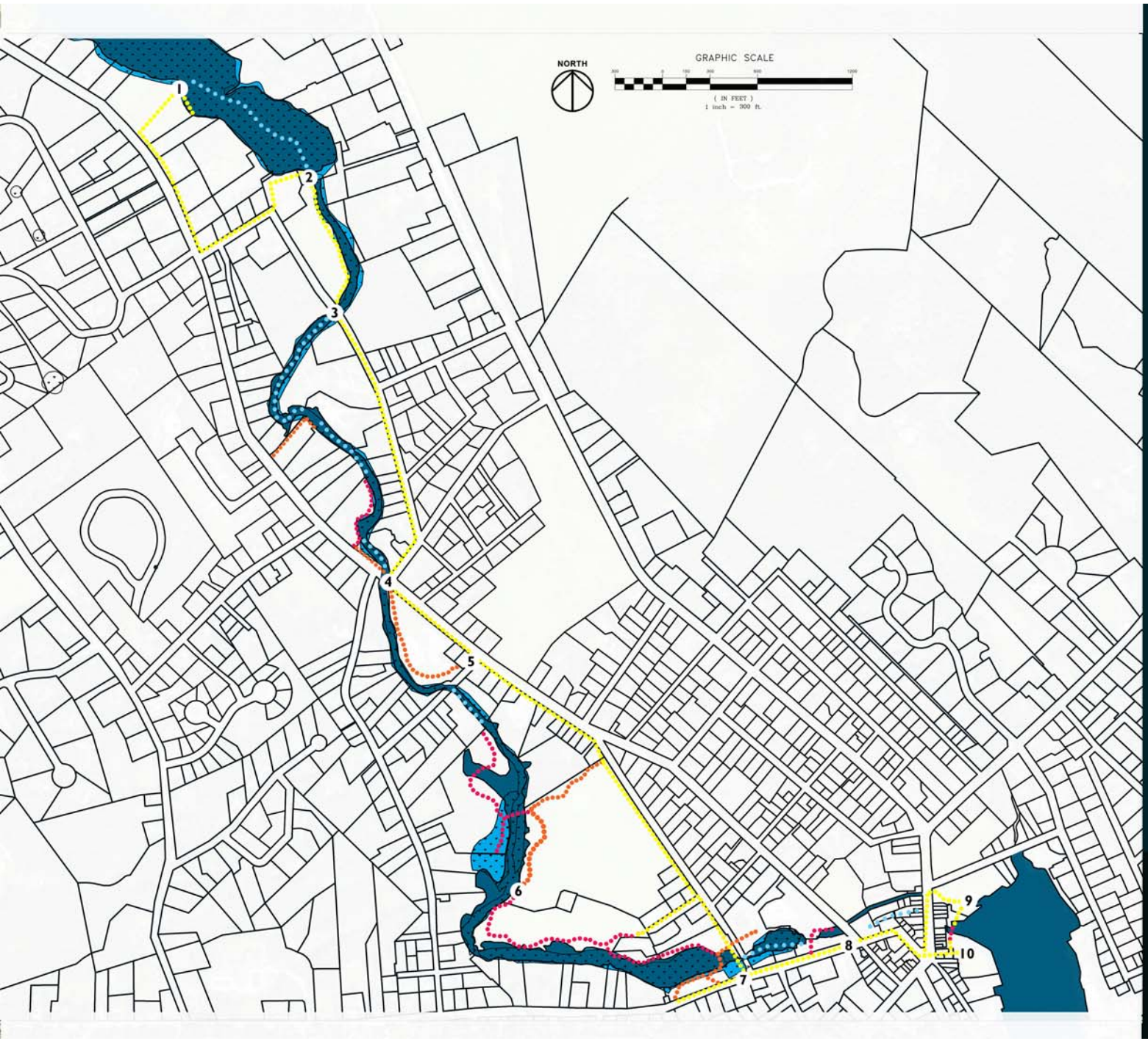

Camden Riverwalk

LEGEND

- existing route
- proposed short-term
- proposed long range
- additional river frontage
- wetland and floodplain
- open water

FIGURE 10: WETLANDS AND FLOODPLAINS

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APPENDIX B

COST ESTIMATES

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CONCEPTUAL COST ESTIMATE

Camden River Walk

October 31, 2013

SCHEMATIC PLAN

ITEM	UNIT	SUBTOTAL POINT 1 TO POINT 2	SUBTOTAL POINT 2 TO POINT 3	SUBTOTAL POINT 3 TO POINT 4	SUBTOTAL POINT 4 TO POINT 5	SUBTOTAL POINT 5 TO POINT 6	SUBTOTAL POINT 6 TO POINT 7	SUBTOTAL POINT 7 TO POINT 8	SUBTOTAL POINT 8 TO POINT 9	SUBTOTAL POINT 9 TO POINT 10	TOTAL PROJECT QUANTITY	UNIT COST	COST
		2204 LF	965 LF	1868 LF	1123 LF	936 LF	2800 LF	1240 LF	790 LF	300 LF	12,226 LF 2.32 MI		
NEW TRAIL	LF	130	-	-	-	-	800	-	-	-	930	$60	$55,800
EXISTING TRAIL IMPROVEMENTS	LF	420	965	-	1123	-	-	1240	790	300	4838	$10	$48,380
STRIPING ON PAVEMENT AREAS	LF	1780	-	1868	-	936	3890	1240	790	300	10804	$5	$54,020
NEW SIDEWALK/PAVED TRAIL	LF	570	-	572	-	-	2000	-	-	-	3142	$120	$377,040
EXISTING SIDEWALK	LF	1210	-	1296	-	936	1890	1240	790	300	7662	$0	$0
CROSSWALKS	EA	-	-	-	-	5	5	4	2	3	19	$400	$7,600
LARGE SIGNS	EA	2	-	-	1	-	1	2	1	2	9	$200	$1,800
SMALL SIGNS	EA	14	24	-	28	-	5	6	2	6	85	$25	$2,124
STENCILS	EA	45	-	47	-	23	97	31	20	8	270	$10	$2,701
BRIDGE	EA	-	-	-	-	-	1	-	-	-	1	$200,000	$200,000
PICNIC TABLES	EA	2	-	-	2	-	3	-	-	-	7	$800	$5,600
BARRIERS	EA	50	-	-	100	-	-	-	-	-	150	$100	$15,000
GRANITE BLOCKS	EA	8	5	4	4	4	6	6	-	4	41	$135	$5,535
BENCHES	EA	4	-	-	4	-	-	2	-	-	10	$1,000	$10,000
MOBILIZATION	LS	-	-	-	-	-	-	-	-	-	1	$62,848	$62,848
													$848,448
												15% Contingency	$127,267.16
												Subtotal	$975,714.91
												15% Design & Permitting	$146,357.24
												10% Constr Eng & Inspection	$97,571.49
													$1,219,644
												SAY	**$1,220,000**

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